IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re United States Patent Application of:		Docket No.:	014835-101.02-029
Applicants:	Geddes, et al.	Conf. No.:	6557
Application No.:	10/536,502	Art Unit:	2858
Date Filed:	12/14/2005	Examiner	Angela M Bertagna
Title:	HIGH SENSITIVITY ASSAYS FOR PATHOGEN DETECTION USING METAL-ENHANCED FLUORESCENCE	Customer No.:	24239

DECLARATION OF DR. CHRIS GEDDES IN U. S. PATENT APPLICATION NO. 10/536,502

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, CHRIS GEDDES hereby declare:

1) THAT I an inventor of the subject matter disclosed and claimed in United States Patent Application No. 10/536,502, filed December 14, 2005 in the United States Patent and Trademark Office entitled, "HIGH SENSITIVITY ASSAYS FOR PATHOGEN DETECTION USING METAL-ENHANCED FLUORESCENCE," claiming priority from PCT International Application No.: PCT/US03/38163 filed on November 26, 2003 which in turn claims priority to US Provisional Application No 60/429,263 filed on November 26, 2002, hereafter referred to as the "Application."

2) THAT the Application discloses and claims a system that includes the use of two separate and distinct probe sequences (a captured and free nucleotide sequence probes) that are not complementary to each other but instead are complementary to separate and distinct portions of the target nucleotide sequence, which is anthrax. Importantly, with the specific use of two

probes sequences that are complementary to different sections of the target nucleotide sequence, the free probe sequence includes a fluorophore that is positioned a distance from the metallic surface to provide for a more sensitive test with increased reliability even when the level of anthrax in the sample is not identifiable by other less sensitive tests.

3) THAT I am aware that the Application has been examined by the United States Patent and Trademark Office, that I have read the April 29, 2008 Office Action issued by the United States Patent and Trademark Office, and that I am aware that the claims of the Application have been rejected on various grounds including the disclosure of Cao, et al., Nanoparticles within Raman Spectroscopic Fingerprints for DNA and RNA Detection, Science, Aug 2002, Vol. 297, pp 1536-1540, hereinafter Cao.

4) THAT I have been informed by my legal representative that the rejections of the claims of the Application can be overcome by presenting evidence to the United States Patent and Trademark Office of my possession of the claimed invention prior to the August 30, 2002 publication date of the Cao reference (Publication Date).

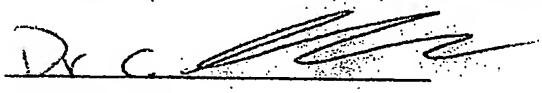
5) THAT attached is Exhibit 1 hereof which is a true and exact copy of power point slide, with dates blackened out, that was created prior to the Publication Date for inclusion in a grant proposal.

6) THAT such slide clearly shows the use of two separate nucleotide sequence probes that have affinity for different sections of a target sequence of anthrax. Further, this slide shows that one of the probes may contain not only a fluorophore but also include a metal particle.

7) Exhibit 1 is are offered with this Declaration as evidence of the conception and possession of the anthrax assay system of the present invention prior to the Publication date identified in Paragraph 4 of this Declaration.

As the below-named declarant, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements, and the like, so made are punishable by fine or imprisonment, or both, under

Section 1001 or Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

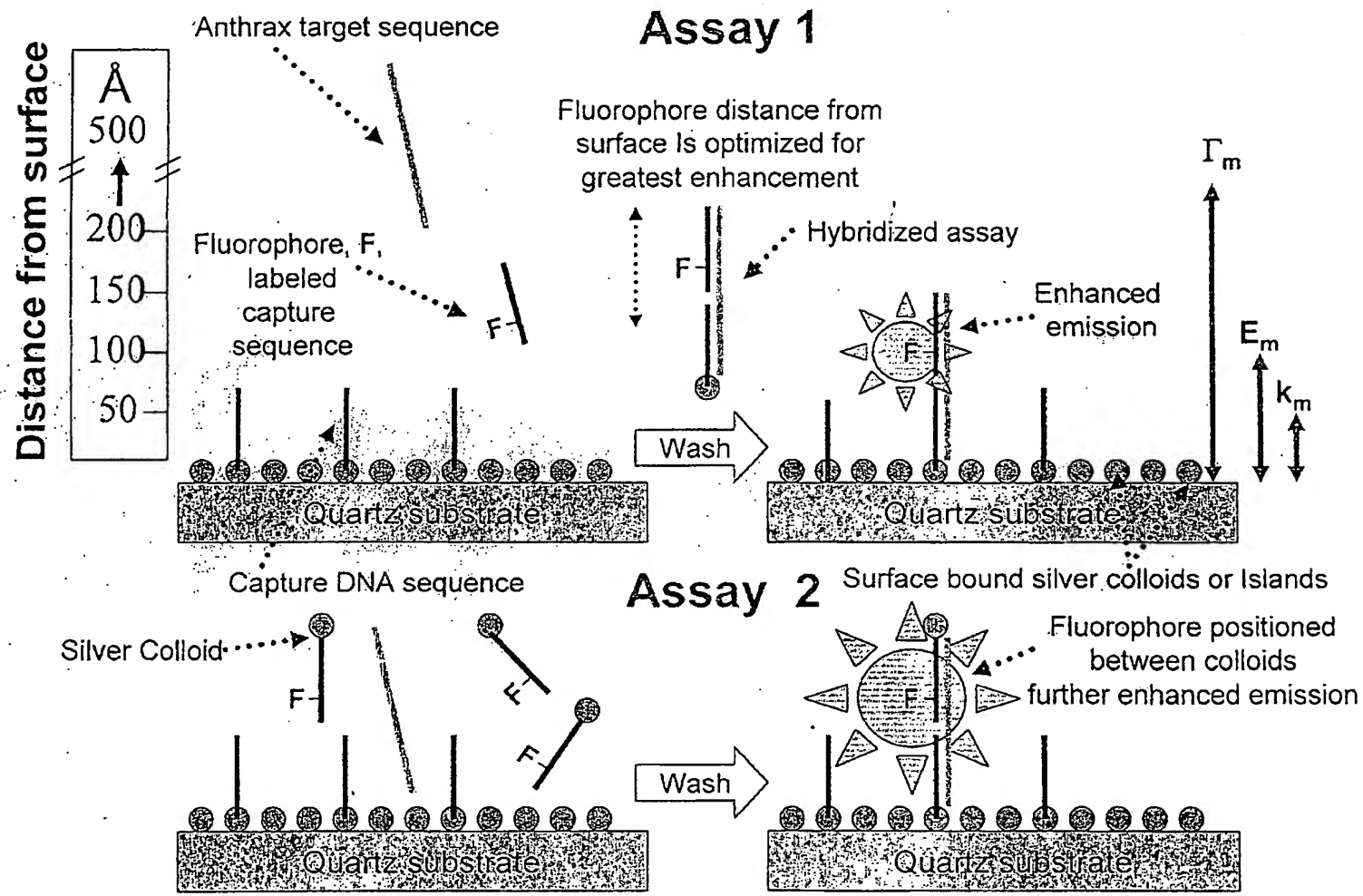


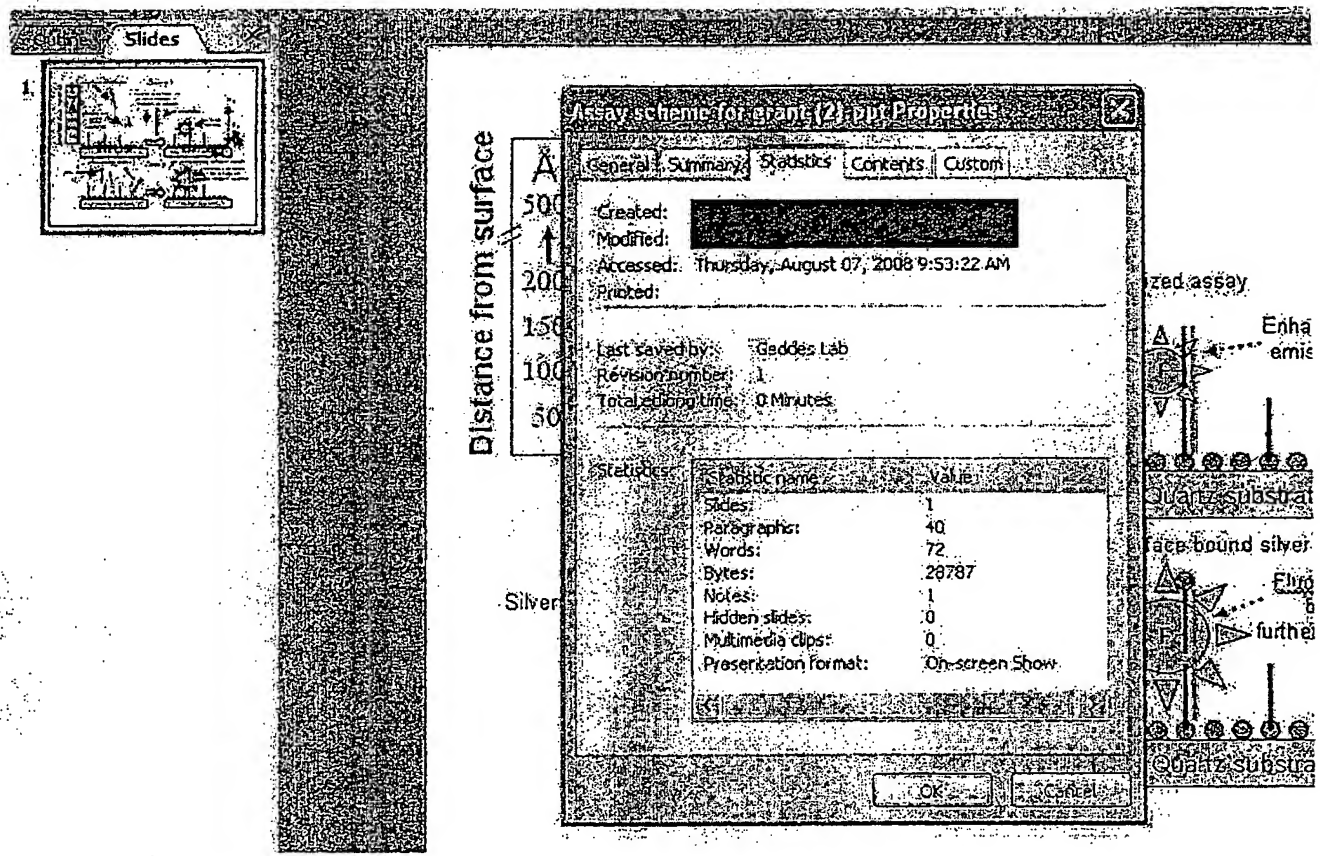
Chris Geddes PhD

8-7-08

Date

Exhibit 1


Assay 1
Anthrax target sequence
Distance from surface
Å
500
200
150
100
50
Fluorophore distance from surface Is optimized for greatest enhancement
Hybridized assay
Fluorophore, F, labeled capture sequence
F
Enhanced emission
Γ_m
E_m
k_m
Wash
Quartz substrate
Quartz substrate
Capture DNA sequence
Assay 2
Surface bound silver colloids or Islands
Silver Colloid
Fluorophore positioned between colloids further enhanced emission
Wash
Quartz substrate
Quartz substrate


Slides
1
Distance from surface
Assay scheme for grant (2) Properties
General
Summary
Statistics
Contents
Custom
Created:
Modified:
Accessed: Thursday, August 07, 2008 9:53:22 AM
Printed:
Last saved by: Geddes Lab
Revision number: 1
Total editing time: 0 Minutes
Statistics:
Statistic name
Value
Slides: 1
Paragraphs: 40
Words: 72
Bytes: 28787
Notes: 1
Hidden slides: 0
Multimedia clips: 0
Presentation format: On-screen Show
OK
Cancel
Silver
zed assay
Enha
emis
face bound silver
furthe
Quartz substra